U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON

Visitors Guide 2015

Orange County Great Park
Irvine, California

Oct. 8–11 and Oct. 15–18
11 a.m. to 7 p.m.





Time to shine

Shine a Light. Share a Journey. Now Is Their Time To Shine!

Welcome to Solar Decathlon 2015.

The U.S. Department of Energy Solar Decathlon is an award-winning program that shines a light on energy-efficient living spaces. It challenges collegiate teams to design, build, and operate solar-powered houses that are cost-effective, energy-efficient, and attractive. The competition lets consumers and students share a journey: You're invited to tour the houses, gather ideas to use in your own home, and learn how energy-saving features can help you save money today. The Solar Decathlon also provides participating students with hands-on experience and unique training that prepares them to enter the clean energy workforce.

Each Solar Decathlon team builds a self-sufficient, solar-powered house that showcases energy-efficient amenities and smart home systems that reduce carbon emissions without sacrificing the comfort of modern conveniences. The competition demonstrates how solar-powered houses connected with the electric utility grid can produce as much energy as needed for comfort, cooking, cleaning, entertainment, and transportation.

The student teams in the Solar Decathlon spend two years designing and building their houses. To prepare for the competition, they test the houses to ensure the highest reliability and greatest efficiency.

The winner of this prestigious competition is the student team that best blends affordability, consumer appeal, and design excellence with optimal energy production and maximum efficiency.

Now is their time to shine!

The Vienna University of Technology team celebrates after placing first in the U.S. Department of Energy Solar Decathlon 2013.
(Credit: Stefano Paltera/U.S. Department of Energy Solar Decathlon)

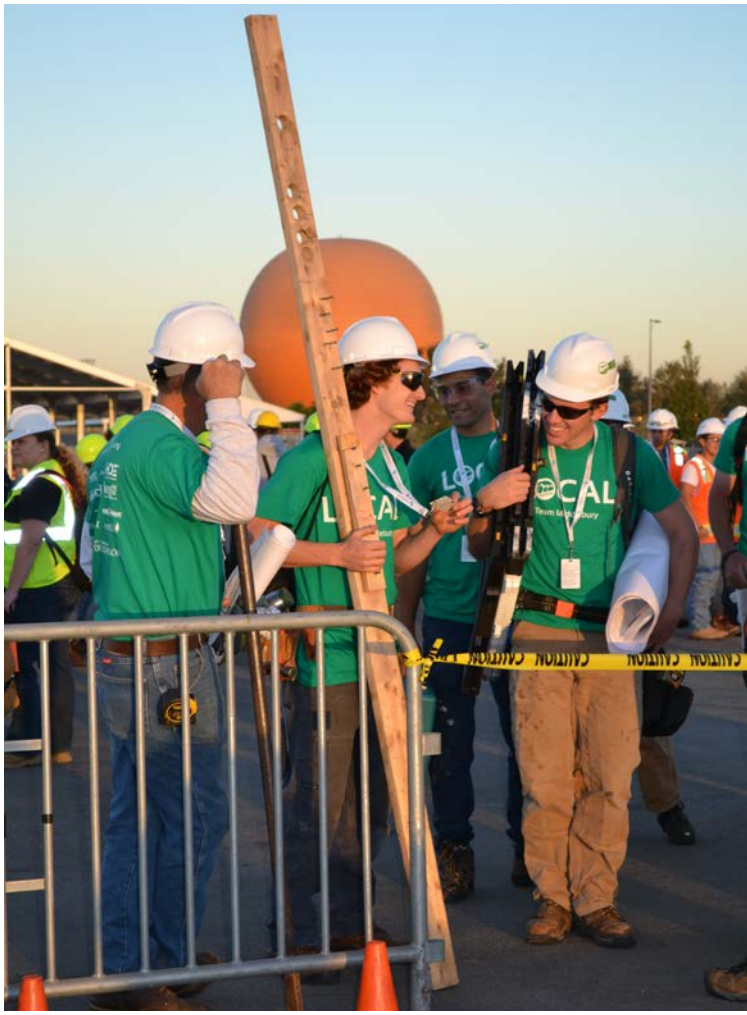
WELLS FARGO

Support from Wells Fargo made the printing of this visitors guide possible.

Table of Contents

Engage with Solar Decathlon 2015 online:

Use your smartphone to scan quick response (QR) codes found throughout this guide and in the Solar Decathlon village for additional information. Or visit **www.solardecathlon.gov**.



Middlebury College students gather equipment and line up to be first to begin construction at the U.S. Department of Energy Solar Decathlon 2013. *(Credit: Amy Vaughn/U.S. Department of Energy Solar Decathlon)*

Shine to the Finish Line!

At its core, the Solar Decathlon is a competitive event with contests designed to challenge the ingenuity and resourcefulness of students and reward teams that put forth the strongest effort.

The Solar Decathlon comprises 10 contests. Each contest is worth 100 points, for a competition total of 1,000 points. Contests based on task completion or monitored performance are called "measured contests." Those based on jury evaluation are called "juried contests." The team with the most points at the end of the competition wins.

10 Contests of Solar Decathlon 2015

1. Architecture
(juried)

Teams are challenged to design and build attractive, high-performance houses that integrate solar and energy efficiency technologies seamlessly into the design. The Architecture Contest Jury focuses on concept and design approach, innovation, and documentation.

2. Market Appeal
(juried)

Each team builds its house for a target client of its choosing. The Market Appeal Contest Jury considers the responsiveness of the house design to the characteristics and requirements of the team-defined target client.

3. Engineering
(juried)

Solar Decathlon houses represent the best of modern engineering. The Engineering Contest Jury evaluates each house for innovation, functionality, efficiency, reliability, and documentation.

4. Communications
(juried)

A jury of communications professionals awards points for the quality, creativity, delivery, and innovation of each team's outreach materials, on-site tours, and educational strategies.

5. Affordability
(juried)

This contest awards more points to teams that design and build affordable houses. A professional estimator determines the construction cost of each house. Teams earn 100 points for achieving an estimated construction cost of $250,000 or less. A sliding point scale is then applied to houses with estimated construction costs between $250,001 and $599,999. Houses with estimated costs of $600,000 or more receive zero points.

6. Comfort Zone
(measured)

This contest rewards teams for keeping their house temperature and humidity steady, uniform, and comfortable.

7. Appliances
(measured)

Teams earn points for operating their refrigerator and freezer, washing and drying laundry, running the dishwasher, and simulating cooking.

8. Home Life
(measured)

This contest awards points based on how well the houses accommodate the pleasures of living. Teams demonstrate lighting, generate hot water for showering, and operate a computer and television. Teams also host dinner parties and a movie night for fellow student participants.

9. Commuting
(measured)

To simulate the driving patterns of a typical household, teams must drive an electric vehicle charged from their house electric system around Orange County several times during contest week.

10. Energy Balance
(measured)

Teams earn full points by using their solar panels to produce at least as much energy as they consume during the contest and by limiting their energy use to be significantly less than a typical household.

Let the Competition Begin!

Competition Schedule	Public Exhibit Hours: 11 a.m. to 7 p.m.				Closed to Public			Public Exhibit Hours: 11 a.m. to 7 p.m.			
	Thurs., Oct. 8	Fri., Oct. 9	Sat., Oct. 10	Sun., Oct. 11	Mon., Oct. 12	Tues., Oct. 13	Wed., Oct. 14	Thurs., Oct. 15	Fri., Oct. 16	Sat., Oct. 17	Sun., Oct. 18
Awards Ceremonies	9:30 a.m.							10 a.m.	10 a.m.	9:45 a.m.	
	Opening Ceremony									Overall Winner Announced	
Contests (100 points each)											
Architecture Market Appeal Engineering Communications Affordability					Architecture, Market Appeal, Engineering, Communications, and Affordability juries visit team houses						
Comfort Zone	Indoor temperature and humidity measurements										
Appliances	Refrigerator and freezer temperature measurements, dishwashing and clothes washing and drying tasks, cooking simulations										
Home Life	Lighting, dining, computer, and home theater tasks; hot water draws										
Commuting	Electric vehicle driving tasks										
Energy Balance	Measurement of electricity produced and consumed										

Follow the competition and see the standings by scanning this QR code or visiting **http://go.usa.gov/3FshA**.

Who's Who at Solar Decathlon 2015

The Teams

The U.S. Department of Energy Solar Decathlon provides hands-on learning in science, technology, engineering, and mathematics that helps create a world-class workforce to address one of the biggest challenges of the 21st century: developing sources of clean energy and more efficient uses of energy to reduce our dependence on fossil fuels. The collegiate teams that design, build, and operate the competition's solar-powered houses represent the next generation of clean energy architects, engineers, and entrepreneurs.

Jurors

Solar Decathlon 2015 jurors are distinguished leaders in their fields. Juries are composed of individuals who bring academic excellence and practical, in-the-field experience to the competition. Solar Decathlon organizers value the jurors' contributions and thank them for their work.

Students from the Czech Technical University celebrate after placing third in the U.S. Department of Energy Solar Decathlon 2013. *(Credit: Stefano Paltera/U.S. Department of Energy Solar Decathlon)*

Architecture Contest

- Ann Edminster, *Design AVEnues LLC*
- Ashar Nelson, *Vermont Integrated Architecture PC*
- Alastair Reilly, *McDonough + Partners*

Communications Contest

- Carolynne Harris, *Carolynne Harris Consulting*
- Macie Melendez, *Home Energy Magazine*
- Mark Walhimer, *Museum Planning LLC*

Engineering Contest

- Michael Brandemuehl, *University of Colorado Boulder Civil, Environmental, and Architectural Engineering Department*
- Cynthia Cruickshank, *Carleton University Mechanical and Aerospace Engineering Department*
- Ginger Scroggins, *Engineered Designs Inc.*

Market Appeal Contest

- Brian Baker, *Baker Development Group LLC*
- Loraine Fowlow, *University of Calgary Architecture Program*
- Annette Stelmack, *Inspirit-llc*

www.solardecathlon.gov/2015/competition-juries.html

Organizers

U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy
Solar Decathlon director: Richard J. King

The U.S. Department of Energy works to ensure America's security and prosperity by addressing its energy, environmental, and nuclear security challenges through transformative science and technology solutions. Within the Department of Energy, the Office of Energy Efficiency and Renewable Energy accelerates development and deployment of clean energy technologies and market-based solutions that strengthen U.S. energy security, environmental quality, and economic vitality. It works closely with industry, manufacturers, and academia to research and develop technical solutions and practices for energy-efficient living and sustainable workspaces.

The Solar Decathlon supports the Energy Department's efforts to advance President Obama's Climate Action Plan and to help reduce emissions to meet the targets of the Clean Power Plan through:

- Renewable electricity generation (including electricity generated from solar, water, wind, and geothermal sources)
- Energy-saving homes, buildings, and manufacturing
- Sustainable transportation (including electric vehicles, homegrown fuels, and fuel cells).

The competition also supports the Obama administration's "all-of-the-above" energy strategy—to reduce energy costs for American families, cut carbon pollution that causes climate change, and strengthen U.S. energy security.

www.energy.gov | www.eere.energy.gov

National Renewable Energy Laboratory
Solar Decathlon event production manager: Sara Farrar

Since 2002, the National Renewable Energy Laboratory (NREL) has served as the primary organizer of the U.S. Department of Energy Solar Decathlon by providing everything from technical expertise to communications outreach in support of each successful event.

NREL develops innovative science and technologies to help tackle today's energy challenges. The laboratory's researchers are dedicated to transforming the way the world uses energy. For nearly 40 years, NREL has been a leader in advancing the latest energy efficiency and renewable energy solutions. NREL's discoveries shape the nation's transportation alternatives and provide sustainable options to power homes and businesses.

NREL's research and partnerships impact the globe with clean, sustainable energy choices. In that spirit, NREL celebrates the brainpower, altruism, and competitiveness displayed at Solar Decathlon 2015.

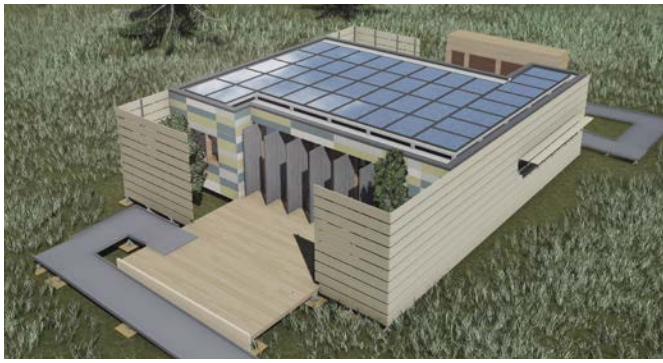
www.nrel.gov

Visitors touring the University of North Carolina at Charlotte house during Solar Decathlon 2013 learn about the rain-catching reflection ponds, which recycle rainwater for landscape irrigation.
(Credit: Stefano Paltera/U.S. Department of Energy Solar Decathlon)

101 Crowder College and Drury University

Crowder College and Drury University's ShelteR^3 is a disaster-resilient house designed for style, simplicity, and security. The name ShelteR^3 (pronounced "shelter cubed") stands for the three components of the house's design philosophy: respond, recover, and resist.

The 973-ft^2, two-bedroom, one-bathroom house features a 9-kW rooftop PV system that serves as an independent energy source. The ultra-strong core, strengthened by a multilayered wall assembly, is further enveloped by an unyielding fence to bolster the safety of those inside should a disaster occur.



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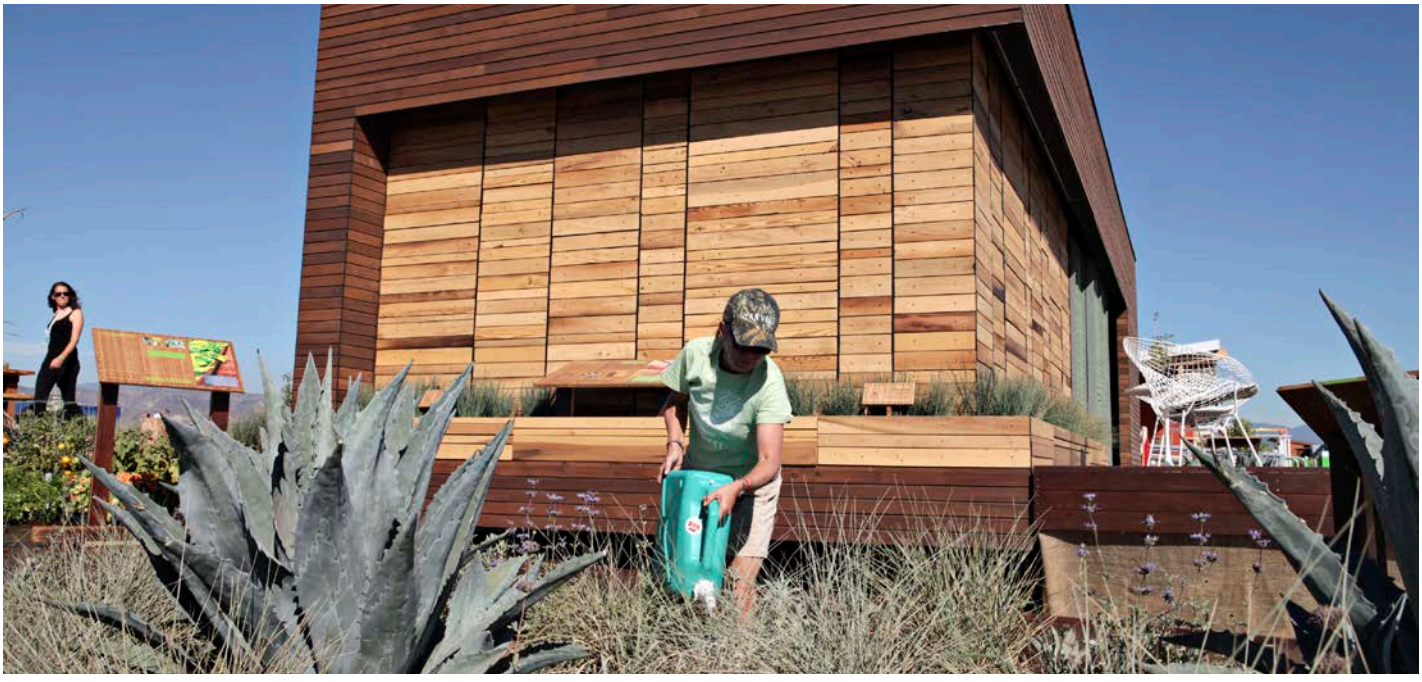

A member of Team Capitol DC (made up of The Catholic University of America, George Washington University, and American University) waters vegetation outside the team's Solar Decathlon 2013 house using water reclaimed from the Hot Water Contest draw completed earlier in the day.
(Credit: Eric Grigorian/U.S. Department of Energy Solar Decathlon)

102 California State University, Sacramento

The California State University, Sacramento, team calls its project Reflect Home because the house is intended to reflect those who live within it. This 996-ft^2, two-bedroom, one-bathroom house combines indoor and outdoor living spaces while demonstrating that sustainability can be achieved without sacrificing modern comfort and convenience.

Reflect Home includes a 5.3-kW PV system, a rain-collecting water feature, a vertical garden, and an air-to-water heat pump that is 80% more efficient than a typical heating and cooling system.

Notes

http://go.usa.gov/3FHc4

104 Texas/Germany: The University of Texas at Austin and Technische Universitaet Muenchen

The University of Texas at Austin and Technische Universitaet Muenchen have partnered to create NexusHaus. The 915-ft^2, two-bedroom, one-bathroom NexusHaus will address sustainable and affordable urban housing in the context of energy and water resource constraints.

The zero-energy, zero-water NexusHaus includes a 7.5-kW PV system, integrated thermal-water storage systems, an aquaponics system, and smart-home management systems. A large covered deck on the south side of the house mimics patios found throughout Texas and shades the house from solar heat gain.

Notes

http://go.usa.gov/3FHxC

105 New York City College of Technology

New York City College of Technology has taken an urban approach to resilient, energy-efficient housing that adapts to the needs of a diverse city and its people. DURA—standing for Diverse, Urban, Resilient, and Adaptable—is a slender, 937-ft^2, one-bedroom, one-bathroom house suitable for a single family living on a small city lot.

DURA combines passive solar and passive house design principles, coupled with low-energy active systems, to optimize performance and maximize occupant comfort. DURA features a 5.5-kW array of PV panels, a rainwater harvesting system, a low-energy mechanical system, and an energy recovery ventilator.

Notes

http://go.usa.gov/3FH3H

106 Clemson University

Clemson University built its Indigo Pine house using a unique construction method developed by the team that used a computer to cut the structural components. The team then assembled the house at the Orange County Great Park like a jigsaw puzzle—the pieces fitting snugly together without the use of power tools.

Designed for a family of four, the 972-ft^2, three-bedroom, one-bathroom Indigo Pine features a one-of-a-kind solar electric DC-direct water heater that vastly reduces energy loss and increases energy efficiency, a 10.4-kW PV array, and a concrete block foundation that helps cool and warm the house.

Notes

http://go.usa.gov/3FHqw

107 California Polytechnic State University, San Luis Obispo

The house from California Polytechnic State University, San Luis Obispo, is designed for coastal California. The 965-ft^2, one-bedroom, one-bathroom INhouse features a 15-ft glass wall in the living room that folds back to double the living space, a gutter system that conveys rainwater to the landscape, a constructed wetlands system that recycles greywater, a phase-change material duct to help regulate internal comfort, passive ventilation, and natural lighting.

A 6.5-kW PV system is integrated into the design, with one array on the core of the house and another on the outdoor deck. The deck's array of bifacial panels serves as a shade awning while collecting additional solar energy from light reflected off the deck surface.

Notes

http://go.usa.gov/3FHqQ

108 Missouri University of Science and Technology

The Missouri University of Science and Technology's Nest Home is designed to meet the needs of a growing family. Just as birds use materials from their environment to build a nest, the team is incorporating repurposed materials throughout its house.

Three refurbished shipping containers compose the primary structure of the 989-ft^2, two-bedroom, one-bathroom house. Innovative technologies such as greywater reclamation and an integrated home automation system pair with passive design techniques to reduce overall energy consumption and improve efficiency. The 7.14-kW PV array powers both the house and the team's electric vehicle.

Notes

http://go.usa.gov/3FH3V

110 Stevens Institute of Technology

Stevens Institute of Technology designed the sustainable and resilient SURE HOUSE for energy-conscious shore residents who are vulnerable to flooding and blackouts caused by extreme weather conditions.

The 994-ft^2, two-bedroom, one-bathroom SURE HOUSE is powered by a 9.63-kW PV array. The building features air-tightness, high-performance glass, intelligent heating and cooling, and solar electric hot water, which enable it to use 90% less energy than a standard house. With bifolding storm shutters and solar-powered charging stations, the SURE HOUSE is designed to both withstand hurricanes and continue to operate through power outages.

Notes

http://go.usa.gov/3FHck

201 University of California, Davis

The University of California, Davis, designed Aggie Sol as a prototype zero-energy home for the underserved farmworkers of America. The two-bedroom, one-bathroom, 985-ft^2 house features a modular layout to make it easier to fabricate, ship, and erect onsite.

The house includes a 6.9-kW PV array, in-line framing, and a radiant floor system. A specialized heat exchanger extracts heat from domestic greywater to preheat potable water for the domestic supply, recycling the latent energy effectively and quickly. Rooftop sprinklers and a large tank of water capture the ambient temperature of the night sky to cool the house during the day and hot summer months.

Notes

http://go.usa.gov/3FHxF

202 Mass/Central America: Western New England University, Universidad Tecnológica de Panamá, and Universidad Tecnológica Centroamericana

The Western New England University, Universidad Tecnológica de Panamá, and Universidad Tecnológica Centroamericana team created a solar house designed for affordability.

The 680-ft^2 Efficient, Affordable, Solar, Innovation (or EASI) House, designed for a family of four, features a 5-kW PV system engineered to meet 100% of the house's energy requirements. A tankless water heater, ductless heating and cooling system, and custom-designed, high-performance windows reduce energy use while ensuring occupant comfort. Space-saving furniture throughout the house maximizes living space in a small footprint. Upon arrival at the competition site, the modular EASI House required minimal assembly.

Notes

http://go.usa.gov/3FH35

203 Team Orange County: University of California, Irvine; Chapman University; Irvine Valley College; and Saddleback College

Casa del Sol from Team Orange County includes a variety of energy-saving features. Natural ventilation from strategically placed windows cools the 984-ft^2, three-bedroom, two-bathroom house, and adjustable coverings over the front outdoor living area, described as a "halo structure," regulate the temperature of this space.

In addition, Casa del Sol incorporates a greywater recycling system that uses wastewater and rainwater to irrigate the drought-tolerant xeriscaping. A grid-tied bidirectional AC-DC inverter makes more efficient use of the electricity generated by Casa del Sol's 8.64-kW PV system.

Notes

http://go.usa.gov/3FHcG

204 University at Buffalo, The State University of New York

University at Buffalo, The State University of New York, has designed a small but dynamic house for an active urban gardening couple. The 770-ft^2, one-bedroom, one-bathroom Garden, Relax, or Work (GRoW) Home includes the GRoWIarium, a 320-ft^2 greenhouse that supports vegetation year-round and provides an extraordinary living space.

The GRoW Home blends passive strategies with active control systems to reduce consumption of the energy generated by its 6.72-kW PV system. The house is designed to be easy and efficient to condition in Buffalo's harsh winters while simultaneously expansive and open in the summer and swing seasons.

Notes

http://go.usa.gov/3FHxW

Local middle school students participate in School Days activities in 2013. *(Credit: Eric Grigorian/U.S. Department of Energy Solar Decathlon)*

206 West Virginia/Rome: West Virginia University and University of Roma Tor Vergata

West Virginia University and University of Roma Tor Vergata present STILE, which is the Italian spelling of "style" and stands for Sustainable Technologies Integrated in a Learning Experience.

Drawing upon Appalachian roots and centuries-old Roman tradition, STILE features an arch (a classic Roman architecture design element) that supports a 10-kW solar panel array. Made from recycled steel shipping containers, the 881-ft^2, one-bedroom, one-bathroom house has a fully integrated automation system, a wall of windows along the southern side that opens to the outdoors, and a solar chimney that passively cools the house.

Notes

http://go.usa.gov/3FHa3

207 Team NY Alfred: State University of New York at Alfred College of Technology and Alfred University

The State University of New York at Alfred College of Technology and Alfred University team has designed Alf House for a small family in southern New York State.

The 881-ft^2, two-bedroom, one-bathroom house features clerestory windows that allow southern light to illuminate the central gathering space. An operable glass wall system can fold, slide, and swing to adjust the space according to the occasion. An energy recovery ventilator system and a hydronic radiant heat flooring system keep the Alf House comfortable. In addition, the house features an 11.5-kW PV system, an energy monitoring system, and a solar hot water system.

Notes

http://go.usa.gov/3FHcP

Solar Decathlon 2015 Sponsors

Edison International is the Solar Decathlon 2015 host utility sponsor. At Solar Decathlon 2013, Ted Craver, chairman and CEO of Edison International (left), and Tammy Tumbling, director of Philanthropy and Community Investment of Southern California Edison (center), visit with a University of Southern California team member. *(Credit: Eric Grigorian/U.S. Department of Energy Solar Decathlon)*

Edison International

Edison International, the parent company of Southern California Edison, returns as a sustaining sponsor of the U.S. Department of Energy Solar Decathlon to be the 2015 competition's host utility sponsor.

"Edison International recognizes the skills needed for Southern California Edison's future workforce. For this reason, we focus some of our educational funding on programs that prepare students to excel in science, technology, engineering, and mathematics fields," says Ted Craver, chairman and CEO of Edison International. "The Solar Decathlon provides hands-on learning that motivates young people to pursue opportunities in STEM, which is why Edison International is proud to support this award-winning competition."

Edison International's sponsorship provides much of the event's infrastructure, furnishings, and temporary interconnection of bidirectional electricity flow between Southern California Edison's electric grid and the Solar Decathlon village microgrid.

Edison International has an exhibit space on Edison International Way with shaded covering and seating where attendees can take a break and learn about programs such as the California Solar Initiative and Energy Upgrade California. In addition, the company displays Southern California Edison's Hybrid-Powered Mobile Energy Unit—a traveling exhibit that features program literature, educational materials, and energy efficiency technologies and displays.

For more than 125 years, Edison International has supported the growth and success of Southern California by safely providing reliable and affordable electric service. Edison International also has a long-standing tradition of investing time and money in the neighborhoods it serves and across communities where it can make a difference. Whether focused on improving access to educational opportunities, protecting the environment, or working together to support vibrant and diverse neighborhoods, Edison International is committed to being a good corporate citizen that has a positive impact in the region.

www.edison.com

Schneider Electric sponsors the microgrid solution that connects the Solar Decathlon 2015 village and the utility service. Schneider Electric is also providing at least 100 employee volunteers to staff the event. *(Photo courtesy of Schneider Electric)*

Schneider Electric

As a global specialist in energy management and automation with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in nonresidential and residential buildings, industries and machines manufacturers, utilities and infrastructure, and data centers and networks. Focused on making energy safe, reliable, efficient, productive, and green, the group's 170,000 employees achieved revenues of 25 billion euros in 2014 through an active commitment to helping individuals and organizations make the most of their energy.

In conjunction with this mission, Schneider Electric is proud to be a sustaining sponsor of the U.S. Department of Energy Solar Decathlon since 2009. Schneider Electric supplies the microgrid solution that enables a safe and reliable electrical connection between the Solar Decathlon village and the utility service during the event. Schneider Electric is also committed to communities where we live and work and, therefore, is also providing at least 100 employee volunteers to staff the event.

Since 2010, Schneider Electric has also sponsored four international Solar Decathlon competitions, including the Solar Decathlon Latin America and Caribbean competition being held in December 2015.

www.schneider-electric.com

Wells Fargo returns as a sustaining sponsor to Solar Decathlon 2015. The financial services company is committed to reducing its own greenhouse gas emissions and operating sustainably. *(Photo courtesy of Wells Fargo)*

Wells Fargo

Wells Fargo is a diversified, community-based financial services company that provides banking, insurance, investments, mortgage, and consumer and commercial finance. A leader in reducing its own greenhouse gas emissions and building sustainably, Wells Fargo serves one in three households in the United States and has been widely recognized for sustainability leadership in the communities it serves.

At Wells Fargo, we embrace the responsibility to lead positive environmental change by finding new ways to minimize our energy consumption, reduce waste, and support renewable sources of energy while building stronger communities. We have developed a long-term strategy aligned with our company's vision and values to foster economic development in the global "green" economy and inspire innovation from entrepreneurs and research entities working on critical environmental issues.

Through our Clean Technology and Innovation Grant Program, we find, foster, and fund projects and entrepreneur programs that support the commercialization of new and emerging clean technologies.

The health of our environment plays a critical role in fostering more sustainable communities. Throughout our history, we have used our depth of resources to invest financial and human capital to strengthen communities across the United States. Today, we continue to invest our resources in protecting our environment. Since 2005, Wells Fargo has provided $37 billion in environmental finance to support the global economy and environment.

We are proud to be a sustaining partner of the U.S. Department of Energy Solar Decathlon 2015 and congratulate all who are involved with Solar Decathlon 2015 and working to develop America's clean technology infrastructure.

www.wellsfargo.com

Aerohive

Founded in 2006 and headquartered in Sunnyvale, California, Aerohive enables our customers to simply and confidently connect to the information, applications, and insights they need to thrive. Our simple, scalable, and secure platform delivers mobility without limitations.

As a company that appreciates creative innovation and forward-looking culture, Aerohive is proud to support the U.S. Department of Energy Solar Decathlon 2015.

www.aerohive.com

Brocade

Brocade networking solutions help the world's leading organizations transition smoothly to a world where applications and information reside anywhere.

www.brocade.com

Consiliant Technologies

Established in 2002 by tenured IT executives motivated to bring more value to businesses undertaking strategic IT infrastructure initiatives, Consiliant Technologies is proud to support the U.S. Department of Energy Solar Decathlon 2015.

www.consiliant.com

Electrolux

Electrolux, a global leader in home appliances, offers thoughtfully designed, innovative, and sustainable solutions for households and businesses, with products such as refrigerators, dishwashers, washing machines, cookers, vacuum cleaners, air conditioners, and small domestic appliances.

Solar Decathlon 2015 is the fourth time that Electrolux has partnered with Pella Corp. to sponsor the event's Education Days programming and school bus grants.

www.electroluxappliances.com

Irvine Ranch Water District

Established in 1961 as a California Water District, the Irvine Ranch Water District (IRWD) provides high-quality drinking water, reliable sewage collection and treatment, groundbreaking recycled water programs, and environmentally sound urban runoff treatment for more than 330,000 residents of Central Orange County, California.

IRWD is pleased to participate in Solar Decathlon 2015. During this time of severe drought in California, IRWD supports projects such as the Solar Decathlon that promote sustainability and water conservation practices. IRWD is providing drinking water to Solar Decathlon visitors as well as water delivery and removal from the competition houses.

www.irwd.com

The Orange County Register

The Orange County Register proudly congratulates the Solar Decathlon 2015 partners and participants. Together, we are leading the charge in making our community and world a better place for generations to come.

In celebrating our 110th anniversary as Orange County's first choice for local news and information, we are pleased to tell the inspiring stories of local difference-makers like you. Creating ideas to make energy more efficient and adaptable to meet the needs of our county … that's bright thinking!

www.ocregister.com

Pella Corp.

Pella Corp., a leading designer and manufacturer of windows and doors, is once again partnering with Electrolux to sponsor the education outreach for the Solar Decathlon.

Pella's participation has enabled thousands of students to learn and experience what it means to build and design comfortable and affordable homes that are energy-efficient. Sponsorship of the Solar Decathlon is just one part of Pella's commitment to education and environmental sustainability for its team members, its customers, and the communities where they operate.

www.pella.com

Tierra Verde Industries

Based in Irvine, California, Tierra Verde Industries (TVI) is a green waste, wood waste, and construction and demolition materials recycler. After processing this material, TVI produces more than 20 products for landscaping, gardening, and agricultural use.

As a sponsor of the U.S. Department of Energy Solar Decathlon 2015, TVI is providing waste management and recycling services for the Solar Decathlon.

www.tierraverdeind.com

ASHRAE

A long-time sponsor of the Solar Decathlon, ASHRAE is providing meals to Solar Decathlon 2015 student decathletes and jurors as well as other support for the event. **www.ashrae.org**

DMc Engineering

DMc Engineering—a full-service engineering consulting firm located in Irvine, California, provided layout and configuration of the Solar Decathlon village and other technical services to Solar Decathlon 2015. **www.dmceng.com**

The Home Depot

The world's largest home improvement specialty retailer, The Home Depot has 2,270 retail stores in all 50 states, the District of Columbia, Puerto Rico, U.S. Virgin Islands, Guam, 10 Canadian provinces, and Mexico. In support of Solar Decathlon 2015, The Home Depot is offering discounts on construction materials to student teams, donating tools and safety equipment to event organizers, and encouraging customers in its retail locations to visit the Solar Decathlon. **www.homedepot.com**

MicroPlanet Technology Corp.

MicroPlanet Technology Corp. is a smart grid, energy-conservation corporation whose products are used by utilities, businesses, and homeowners to optimize incoming voltage, improve power quality, and manage bidirectional distributed energy from PV and wind. A three-time sponsor of the Solar Decathlon, MicroPlanet is providing services to ensure the smooth operation of the Solar Decathlon 2015 village microgrid. **www.microplanet.com**

National Association of Home Builders

The National Association of Home Builders represents more than 140,000 members involved in home building, remodeling, multifamily construction, property management, subcontracting, design, housing finance, building product manufacturing, and other aspects of residential and light commercial construction. A long-time supporter of the Solar Decathlon, the National Association of Home Builders is providing building-industry outreach for Solar Decathlon 2015 as well as a meal for student decathletes. **www.nahb.org**

Orange County Transportation Authority

Offering transit services throughout Orange County, California, the Orange County Transportation Authority is supporting Solar Decathlon 2015 by distributing marketing and outreach materials that will increase awareness of the event among Orange County residents. **www.octa.net**

OxBlue

As a sponsor of Solar Decathlon 2015, OxBlue is providing a time-lapse camera system that transmits images from the Solar Decathlon village to the Solar Decathlon website for fans everywhere to see. OxBlue's rugged solar-powered construction cameras have been used around the world to reduce costs and improve communication on construction projects of all sizes. **www.oxblue.com**

Resource Furniture

Resource Furniture offers a collection of furniture designed to transform any space with both beauty and functionality and is committed to supporting organizations and programs that address the issues of housing and sustainability. A sponsor of Solar Decathlon 2015 at both the event and team levels, Resource Furniture is providing food for the team Victory Celebration, and several houses feature the company's transforming furniture. **www.resourcefurniture.com**

AIA Orange County is supporting Solar Decathlon 2015 by promoting event attendance and volunteerism to its members. **www.aiaoc.org**

The **American Institute of Architects** partnered with the Construction Specifications Institute and the National Institute of Building Sciences to provide National CAD Standards licenses to the Solar Decathlon 2015 teams. **www.aia.org**

ARCOM has continued its sponsorship of the Solar Decathlon by providing Arcom MasterSpec Small Project for each participating university and offering physical copies of its Specifying LEED book and a 50% discount off the digital copy for any team that requested it. **www.arcomnet.com**

The **Southern California Chapter of the American Society of Landscape Architects** is supporting Solar Decathlon 2015 by promoting event attendance and volunteerism to its members. **www.socal-asla.org**

Autodesk helped Solar Decathlon 2015 teams design their competition houses by providing online learning content, free Autodesk software, and cloud-based services. These enabled students to conduct building information modeling, conceptual building performance analysis, and construction modeling and planning as well as collaboration. **www.autodesk.com**

The **Construction Specifications Institute** partnered with the American Institute of Architects and the National Institute of Building Sciences to provide National CAD Standards licenses to the Solar Decathlon 2015 teams. **www.csinet.org**

Doctor's Ambulance Service provides medical transport needs to communities throughout Orange County, with service to six local hospital emergency rooms and three regional trauma centers. As a sponsor of Solar Decathlon 2015, Doctor's Ambulance Service is providing standby ambulance services during the competition and public exhibit at a reduced cost to competition organizers. **www.doctorsambulance.com**

The **International Code Council** provided Solar Decathlon 2015 teams with access to the 2012 International Residential Code and 2012 International Building Code. **www.iccsafe.org**

The **National Fire Protection Association** provided the 2014 National Electric Code for use by the Solar Decathlon 2015 teams. **www.nfpa.org**

The **National Institute of Building Sciences** partnered with the American Institute of Architects and the Construction Specifications Institute to provide National CAD Standards licenses to the Solar Decathlon 2015 teams. **www.nibs.org**

RSMeans helped Solar Decathlon 2015 teams compete in the Affordability Contest by providing them access to the RSMeans Online cost-estimating tool as well as recorded and live training materials and demonstrations. **www.rsmeans.com**

The **Orange County, Los Angeles, and San Diego chapters of the U.S. Green Building Council** are supporting Solar Decathlon 2015 by promoting event attendance and volunteerism to their members. **www.usgbc.org**

Orange County Great Park

Visitors to Solar Decathlon 2015 have the opportunity to explore not only the competition houses but also the variety of attractions within the Orange County Great Park.

For more details and updated information about activities, art exhibits, special events, and farm and food programs, visit **www.ocgp.org** and click on Visitor Information and Events. Or visit the Visitors Center Pavilion in person.

The Great Park is open 9 a.m. to 10 p.m. Saturdays and Sundays and 10 a.m. to 10 p.m. Thursdays and Fridays.

- **Great Park Art Gallery** Featuring "Bold and Independent: UC Irvine's 50th Anniversary Exhibition" starting Oct. 9. The exhibit celebrates the university's 50th anniversary while showcasing highlights such as architect William Pereira's visionary master plan that first created a campus and then helped create a city. Gallery hours: 10 a.m. to 4 p.m. Saturdays and Sundays, noon to 4 p.m. Thursdays and Fridays.
- **Great Park Balloon** Hours: 9 a.m. to 3 p.m. and 7 p.m. to 10 p.m. Saturdays and Sundays, 10 a.m. to 3 p.m. and 7 p.m. to 10 p.m. Thursdays and Fridays (weather permitting).
- **Visitors Center** Hours: 9 a.m. to 10 p.m. Saturdays and Sundays, 10 a.m. to 10 p.m. Thursdays and Fridays.
- **Great Park Carousel** Hours: 9 a.m. to 10 p.m. Saturdays and Sundays, 10 a.m. to 10 p.m. Thursdays and Fridays.
- **South Lawn Sports + Fitness Complex**
- **Palm Court Arts Complex**
- **Farm + Food Lab**
- **Farmers Market** Hours: 10 a.m. to 2 p.m. Sundays.
- **Walkable Historical Timeline**
- **Kids Rock Playground** Next to the Visitors Center.
- **The Great Park Farm** By guided tour only.

Solar Decathlon 2015 teams cheer during an all-team photo at the Orange County Great Park in January 2015. *(Credit: Cliff Wallace, Orange County Great Park)*

HOUSES

101 Crowder College and Drury University

102 California State University, Sacramento

104 Texas/Germany The University of Texas at Austin and Technische Universitaet Muenchen

105 New York City College of Technology

106 Clemson University

107 California Polytechnic State University, San Luis Obispo

108 Missouri University of Science and Technology

110 Stevens Institute of Technology

201 University of California, Davis

202 Mass/Central America Western New England University, Universidad Tecnológica de Panamá, and Universidad Tecnológica Centroamericana

203 Team Orange County University of California, Irvine; Chapman University; Irvine Valley College; and Saddleback College

204 University at Buffalo, The State University of New York

206 West Virginia/Rome West Virginia University and University of Roma Tor Vergata

207 Team NY Alfred University of New York at Alfred College of Technology and Alfred University

EXHIBITS

EI = Edison International
SE = Schneider Electric
WF = Wells Fargo

U.S. DEPARTMENT OF ENERGY
Energy Efficiency & Renewable Energy

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